

**HEALTH CARE AND PROBLEMS  
OF  
HEALTH DEVELOPMENTS :  
A Study of Some West Bengal Villages**

**C. N. RAY**



**GIRI INSTITUTE OF DEVELOPMENT STUDIES  
SECTOR 'O' ALIGANJ HOUSING SCHEME  
LUCKNOW 226020**

HEALTH CARE AND PROBLEMS OF HEALTH DEVELOPMENT :  
A STUDY OF SOME WEST BENGAL VILLAGES

C.N. Ray

INTRODUCTION :

In the post-Independence period the health care scheme in India derived its inspiration from the health and manpower development policies which were based on the Western model of establishing curative centres in the form of Primary Health Centres (PHCs) and hospitals at sub-divisional and district levels. This policy of health care concentrated on curative aspects. The nature of the health services to be provided by the PHCs are presented in Table 1. The table indicates that three major types of services are expected to be performed by the PHCs. These are : Medical Care, National Programme of Control of Communicable Diseases, Population Control and Family Welfare Programmes. In addition some miscellaneous services are also expected to be handled by the PHCs. The type of services listed in Table 1 have evolved over a period of thirty six years, and as such different types of services have been provided at different points of time. Given the nature and scope of the above tasks and the responsibility placed on the medical and paramedical personnel attached to the PHCs, the actual number of services provided at the PHCs has depended on the relative emphasis placed on certain items by the government on the one hand and the availability and expertise of the personnel on the other.

Table-1 : Nature of Health Services Expected to be  
Provided by the PHCs

Programme	Type of service(s)
<u>1. Medical Care</u>	
1.1 Medical Care	<ol style="list-style-type: none"> <li>1. Out-patient care</li> <li>2. In-patient care</li> <li>3. Laboratory services</li> </ol>
1.2 Maternal and Child Care	<ol style="list-style-type: none"> <li>1. Preparation of adolescents for parenthood</li> <li>2. Anti-Natal care</li> <li>3. Delivery services</li> <li>4. Post-Natal care</li> <li>5. Infant and pre-school care</li> </ol>
1.3 School Health Service	<ol style="list-style-type: none"> <li>1. School sanitation</li> <li>2. Health check-up</li> <li>3. Immunisation</li> <li>4. Health education</li> </ol>
1.4 Environmental Sanitation	<ol style="list-style-type: none"> <li>1. Safe drinking water supply</li> <li>2. Disposal of smoke and animal and human excreta</li> <li>3. Waste water disposal and drainage</li> <li>4. Sanitation of markets, prevention of adulteration of edible oils</li> </ol>
<u>2. National Programme of Control of Communicable Diseases</u>	
2.1 National Malaria Eradication Programme	<ol style="list-style-type: none"> <li>1. Active surveillance</li> <li>2. Passive surveillance</li> </ol>
2.2 Filaria Control Programme	<ol style="list-style-type: none"> <li>1. Prevention of Filaria</li> <li>2. Control of Filaria</li> </ol>
2.3 Cholera and Diarrhoea Diseases Control Programme	<ol style="list-style-type: none"> <li>1. Isolation, treatment of index cases and prevention of further infections</li> <li>2. Management of carriers and contact index cases</li> </ol>

Table-1 contd...

Programme	Type of service (s)
2.4 National T.B. Programme	3. Concurrent and terminal diseases infection 4. Immunisation 5. Health education 6. Oral rehydration therapy 1. Detection of T.B. 2. Domicilliary treatment of detected cases 3. Referral service 4. Team building 5. BCG inoculation campaign
2.5 National Leprosy Control Programme	1. Survey work 2. Treatment and referral work 3. Changing the attitude of the population
2.6 National Programme for Control of Blindness	1. Eye health education 2. Detection of cases prone to acquire eye problems 3. Identification and coverage of population with vitamin A deficiency 4. Referral service
2.7 Expanded Programme of Immunisation	1. Integration of Immunisation service and expansion of coverage 2. Improving the capacity of personnel 3. Health education
2.8 National Goitre Control Programme	1. Survey work 2. Timely treatment



Table-1 contd...

Programme	Type of service(s)
3. <u>Population Control and Family Welfare</u>	
3.1 Population Control and Family Welfare Programme	1. Motivation about the Small Family Norm 2. Organisation of the Family Welfare Camps 3. Promotion of conventional contraception 4. Medical care of pregnancy 5. Tubectomy by laparoscopic method 6. Population control work in organised institutions in the area
4. <u>Miscellaneous Services</u>	
4.1 Community Health Guide Programme	1. Health education 2. First aid 3. Treatment of minor ailments 4. Distribution of contraceptives
4.2 Collection and Compilation of Vital Statistics	1. Obtaining and filling of vital statistics
4.3 Health education	1. Creation of interest in health consciousness
4.4 Maintenance of Accounts and Registers	1. Maintenance of proper accounts and registers
4.5 Conduct of Medico-Legal Cases	1. Conduct of medico-legal cases

Source : H.S. Verma, Health Care Delivery in Rural Area : A Case Study from U.P. (Forthcoming).

In the fifties, when the health infrastructure was in its infancy, the emphasis, both by government as well by the health staff, was quite naturally on provision of curative services so as to avoid widespread death and acute illness caused by major killers. In the sixties, a major national effort was initiated in the shape of different disease control programmes for which additional administrative and paramedical staff were provided. In addition the national programme of Family Planning and Population Control also assumed significance and resulted in heavy allocation of resources. The major thrust of these national programmes was on prevention as well as on elimination of certain diseases and control of population. Extension was its major plank. Whereas medical officers concentrated on the prescriptive aspects of these national programmes and on medical care, diagnostic and prescriptive services, the paramedical staff was largely used for health education and related work. During the Seventies, although the importance of one or two national programme has declined (Cholera, Malaria), certain new ones were added (Goitre, etc.). Qualitatively, the medical personnel were compelled officially to give maximum attention to the family welfare programmes rather than medical care. As a result, the effect of the national programme for controlling communicable diseases lost its edge.

The national health policy which was in operation upto 1977 is the result of hospital based, disease and care-oriented approach towards the establishment of medical servi-

ces.\* It has provided benefits to the upper crusts of the society, specially those residing in the urban areas. The proliferation of this approach has been at the cost of providing comprehensive primary health care services to the entire population, whether residing in urban or rural areas. It also indicates the urban bias in health care approach.

The continued high emphasis on the curative approach has led to the neglect of preventive, promotive, public health and rehabilitative aspects of health care. The need for improving awareness and building-up self-reliance here also neglected in this approach. As a result people become dependent on the existing facilities and it also weakened the community's capacity to cope with its problems.

By and large this health care approach failed to initiate popular participation in implementing various health and family welfare programmes and also in establishing a self-reliant community. The ultimate goal of achieving satisfactory health status for all cannot be secured without involving the community in identification of health needs and priorities as well as management of various programmes.

An experiment in a limited area in demystifying health care and making it available in the most rudimentary form at the village level was undertaken when the Janata Party was in power at the Centre (1977-1979). This programme is known as

---

\* All these points are categorically mentioned in the National Health Policy, published by Ministry of Health and Family Welfare, Govt. of India, 1983 : 3.

the Community Health Scheme and was based on the concept of bare-foot doctors in China. In this scheme the main emphasis has been given to transferring basic knowledge and skills of health care to the people themselves through a programme of home-based low-cost remedies which can enable people to take care of most of their common health problems themselves. The new scheme introduced a major change in the staffing pattern and orientation of the health officials.

This paper concerns itself with the various aspects of health facilities, incidence of diseases and use of health care facilities by the people in West Bengal during two time periods : 1972-77 and 1977-82. These two time periods have been selected because during the first period the Congress Party was in power, while the Left Front Parties were in power during the latter period.

For the purpose of this study Hooghly and Murshidabad districts were selected. The selection was made using the criteria of dominance of political parties in terms of their organisational strength and results of assembly elections. Chanditala Block-1 in Hooghly and Kandi in Murshidabad were also selected in the same manner. Four sample villages were randomly selected from each block. Households were classified into various categories based on landholdings before drawing the final sample and 10 per cent of the households were selected. Initially 236 households were selected but six of them did not cooperate and exact replacement could not be found

during the fieldwork. Finally 230 respondents were interviewed. These households generally represent the structural features of the villages in terms of landholdings. The field work of the study was undertaken during February to July 1983.

In Hooghly all the sample villages were found to be located at a distance of 6 to 7.5 Kms. from the nearest Primary Health Centre (PHC). In Murshidabad only one Subsidiary Health Centre (SHC) was providing health care services in village Purandarpur which is located at a distance of one to six Kms. from the other three sample villages. The indoor facility of the SHC was withdrawn in 1978 and at the time of our study only the outdoor facility was available. The medical officer of the SHC lived in the nearby sub-divisional town and the SHC was looked after by the compounder. Two private practitioners were also available in Purandarpur. In the other seven sample villages no health facility was available.

In this section the analysis concerns itself first with sanitary facilities, drinking water supply and incidence of various diseases in the sample villages. Next it indicates the type of health care facilities available at the village and PHC levels to the respondents. Finally, it specifies the nature of access to specialised health care services in health centres and hospitals.

## Sanitary Facilities

Sanitation and hygiene within the villages includes three elements : Liquid waste disposal; Solid waste disposal (both human and animal); and drainage. Latrines and toilets are the most common facility in the sample areas. Table 2 indicates the latrine and toilet facilities available within the respondent households at two points of time.

Table-2 : Number of Households Having Latrines and Toilets

Village	No. of sample households	Number of latrines and toilets	
		1977	1982
<u>HOOGHLY</u>			
Barachoughare	30	3	7
Ganeshpur	29	-	2
Jiarah	29	1	3
Mukundpur	27	2	5
<u>MURSHIDABAD</u>			
Kumarsanda	29	2	5
Ghanashyampur	29	1	2
Purandarpur	47	7	10
L.N. Pur	10	1	1

The table reveals that latrine and toilet facilities are available among a limited number of households in both the sample districts though their number has increased in both the villages in the post-1977 period. The available latrine units have been constructed on individual initiative and expense. Government help, although supposed to be available since the



beginning of the Community Development Programme in 1952, has not been obtained by any of the respondents having this facility. These are improved latrine links located in a remote corner of the dwellings. It was observed that respondents with non-agricultural occupations are more interested in having latrines and toilets than agricultural households. Among the landless agricultural labourers and marginal farmers no sanitary arrangements are available in both the districts. In the absence of proper facility, open defecation is very common among all categories of respondents. Bamboo groves are generally used by the villagers for this purpose.

For bathing, ponds and handpumps are generally used. In some cases water of the shallow tube wells are also used for bathing. In all the sample villages water in the ponds particularly during the summer is polluted as it is also used to clean clothes, utensils, etc. Domestic animals are also bathed in the same ponds. Bathing in the polluted water of the ponds leads to various kinds of diseases.\* No initiative is taken by the para-medical staff of the concerned PHCs to disinfect the ponds.

#### Drinking water Supply

Handpumps are the only source of drinking water in both the sample areas. All the eight sample villages received handpump facilities in 1977. However, the number of these

---

\* During field work in the village of Kumarsanda, Murshidabad, the researcher suffered a severe skin disease after bathing in the village pond. It took two months to cure properly.

pumps were very limited and more pumps installed during post-1977 period, strengthened the availability of drinking water. Table 3 gives the number of public and private handpumps available within the same villages.

Table-3 : Number of Public and Private Handpumps in the Sample Village

Village	No. of sample households	Number of handpumps			
		1977		Post-1977	
		Public	Private	Public	Private
<u>HOOGHLY</u>					
Barachoughara	30	3	5	5	6
Ganeshpur	29	3	2	4	3
Jiarah	29	2	2	4	2
Mukunderpur	27	3	3	4	3
<u>MURSHIDABAD</u>					
Kumarsanda	29	3	3	4	4
Ghaneshyampur	29	2	2	3	2
Purandarpur	47	4	4	6	5
L.N. Pur	10	1	1	1	1

A limited number of households in both the sample districts have private handpumps for their personal use. These households are either those with non-agricultural occupations or belong to the big landholding category. It was observed that households having latrine and toilet facilities also have handpump facility.

Except in L.N. Pur, new handpumps have been installed in all other villages during the post-1977 period. The important aspect is the location of these handpumps. All the old

public handpumps (i.e, those installed in the pre-1977 period) in all the sample villages were installed in the areas surrounded by high caste/class people. In Hooghly, all the localities where Scheduled Castes generally live did not have handpumps. The only exception was Jiarah where one pump was installed in the Scheduled Caste area. However, it remained out of order for quite a long time. The situation is not much different in this respect in the post-1977 period. During the post-1977 period handpumps have been installed in the areas where lower caste/class people live only in Hooghly district. In Murshidabad the four new public handpumps installed are all located in the high caste, well to do, areas. No new handpumps were installed in L.N. Pur which has a predominantly Scheduled Caste population. Handpumps working with cooperative shallow tubewells are also used as a source of drinking water if they are installed near residential localities. During the summer of 1982 and 1983 these shallow tubewells were the main source of water for all purposes, as most of the handpumps and ponds dried up due to severe drought in the State.

The promise of locating public handpumps is one of the important election issues in both Hooghly and Murshidabad for the last two decades. Selection of the site for installation of handpumps has consequently been done by most political parties keeping the election prospects of their party in view. In some cases false promises for handpumps were also given just to get votes from that locality.

### Incidence of Diseases\*

During the pre-independence period diseases like Cholera, Plague, Small pox and Malaria were the major killers in the sample villages. The morbidity pattern showed preponderance of gastro-intestinal and respiratory diseases. Early establishment of the PHCs in West Bengal under the dynamic leadership of Dr. B.C. Roy led to the availability of primary health care facilities at the PHC levels. Introduction of various national programmes of controlling communicable diseases succeeded in controlling large scale deaths due to major killers. Although diseases like Cholera and Malaria have not been completely eliminated, the extent of the damage - in terms of deaths and morbidity - which they were causing earlier has been greatly reduced.\*\* Similarly the combined impact of public and private medical care facilities which are available to the respondents have also reduced the previously high rates of infant and maternal mortality. While hard data are not available this fact is confirmed by the opinion of health staff and villagers. Incidence of diseases in the sample area can be divided into four major categories. These are : (1) Diseases caused by environmental factors (like poor sanitation, poor drinking water, etc.) viz., Gastro-intestinal diseases, worm infections, malaria, skin diseases etc.; (2) Infections diseases like Small-pox, Chicken-pox, measles, mumps, etc.;

---

\* Being a non-medical hand, it was not possible for me to attempt a very rigorous and methodologically very accurate estimate of diseases in the sample villages. What has been attempted is a general assessment.

\*\*This view has been supported by the Government of India's Statement on 'National Health Policy' which was placed before the Parliament in 1982. It is also cited by D. Banerjee: 1983 :105.

(3) Ailments related to malnutrition and poor diets, viz., rickets and some gynocological problems among women; (4) Others like pains and aches.

In both the sample areas the largest number of respondent households are affected by gastro-intestinal diseases such as diarrhoea, dysentery and gastric troubles.\* It is followed by respiratory diseases like cold, cough, fever, tuberculosis, diphtheria, pneumonia and asthma. Among the adult members infections diseases and diseases like Cancer, Tumour, T.B. and unspecified fever are more important than others. Among children diphtheria, pneumonia, hook-worm and measles are more prevalent. Deaths have also been reported in all the sample villages due to snake bite, particularly during the rainy season.

#### Health Care Facilities at the Village Level

In the sample areas of Hooghly and Murshidabad three patterns of treatment are prevalent simultaneously. The most important is the allopathic or the western mode of treatment available through PHCs and allopathic private practitioners. Next comes homeopathic treatment available through private homeopathic practitioners is also in use. The last one is the traditional folk system which also includes magico-religious treatment.

---

\* Similar results also recorded by S. Bose : 1979 : 17, in a study of Health Situation and Problems of Health Development in a West Bengal Village.

A general tendency among the rural people is to ignore diseases at the early stages. This neglect is possibly due to three major factors : (i) ignorance due to illiteracy, (ii) poverty, and (iii) non-availability of proper health care facilities at the village level. In fact Ojhas are still playing an important role in the treatment of various diseases related with stomach, fever, gyneacological problems and madness, etc. in both the sample areas of Hooghly and Murshidabad. The survival of the Ojhas in the sample villages is related to three factors : (i) it is very cheap in comparison to other forms of treatment, (ii) blind faith in folk treatment, and (iii) Ojhas and others share the culture of the patients through living in the same area and they may also be related as Kinsmen, friends, etc. Djurfeldt and Lindberg (1975) also noted these reasons for the survival of folk treatment in Tamil villages.

The use of different kinds of Health Care facilities by the respondents at the village level are presented in Table-4. The Table 4 indicates that health care through private system was more important than the public system in the sample villages both in the pre and post-1977 periods. The use of village level health workers including family welfare workers has increased in the post-1977 period in both the districts. A considerable number of respondents are using folk treatment even now. The rate of its decline in the post-1977 is only marginal. The use of homeopathic treatment has increased mainly due to increase in number of homeopathic practioners in the sample areas. The activities of the health workers and



Table-4 : The Different Types of Health Care Facilities  
at the Village Level

Types of facilities	No. of respondents reporting use*			
	Hooghly		Murshidabad	
	Pre-1977	Post-1977	Pre-1977	Post-1977
<u>PUBLIC SYSTEM</u>				
1. Village level health worker	43	65	35	42
2. ANM and others	-	22	-	-
3. Vaccinator	85	92	72	79
4. Family welfare worker	43	72	35	51
<u>PRIVATE SYSTEM</u>				
1. Allopathic practitioner	108	112	92	98
2. Homeopathic practitioner	68	76	49	65
<u>FOLK SYSTEM</u>				
1. Folk treatment	59	52	58	55

\* Multiple replies.

the village level health workers has increased in post-1977 period, although they are not providing any specialised medical services which are available only in the PHCs and hospitals at the various places.\*\* The number of respondents using public health care facilities is presented in Table 5.

Table 5 indicates that more respondents used PHCs in Murshidabad than in Hooghly in both pre and post-1977 periods.

\*\* The health workers rarely visit the villages or motivate them for better health care practices and create consciousness among the villagers in this sphere.

Table-5 : No. of respondents using public health care facilities

Hospitals	Hooghly		Murshidabad	
	Pre-1977	Post-1977	Pre-1977	Post-1977
PHC	45	57	62	91
Sub-division hospital	18	25	55	73
District hospital	6	10	9	12
Specialised hospital	22	38	6	7

But the use of specialised hospitals among Hooghly respondents is more than in Murshidabad. Yet a considerable number of respondents have not used hospitals of any type in both the sample areas. Generally, villagers go to the hospitals when local practitioners fail to treat them properly. In case of accidents and in poisoning cases, etc. government hospitals are the only means of health care as private practitioners refuse these cases due to legal complications. The condition of access for getting proper treatment varies among various categories. In the pre-1977 period personal initiative and personal contact with the hospital staff was necessary. When a case was referred by a local leader either personally or through a letter, special attention was given by the staff. In the post-1977 period interference of the party leaders has become a condition for proper treatment. Even for an X-ray plate or other costly items local party contacts are necessary. In Hooghly, CPI(M) workers and leaders are being used to get proper treatment. Similarly Congress workers are used in

Murshidabad. The general condition of access for the poor people has changed only slightly. In PHCs generally one all-purpose mixture is available for most poor people. This is not of much use. Costly medicines are generally not distributed in the PHCs. The situation is somewhat different in the sub-divisional hospitals.

### Conclusion

The strategy of the health care facilities during the period 1972-77 was entirely based on curative measure, Western mode of treatment and was purely hospital oriented. The introduction of the Community Health Scheme was intended to radically change the health care strategy in post-1977 period because it laid special emphasis on the Health team approach to bridge the gap between the target population and programme. In the new <sup>10802</sup> scheme special emphasis has been given on preventive measures in place of curative approach. As this strategy has been in operation since 1978, changes were expected in health care facilities and pattern of treatment in West Bengal villages. But our investigation revealed very little change in both these respects in the sample villages. Due to economic backwardness and nonavailability of the facilities not much improvement has been recorded in public health and hygiene. The facilities available and also the performance of the SHC and PHCs are not encouraging. During the fieldwork it was observed that motivational change for public health and hygiene and health education is very poor. Due to several factors

child marriage, large number of children, inadequate health care and dependence on folk or magico-religious treatment is very much dominant in the daily life of the people. In this respect no major differences were recorded among the sample villages. Absence of initiative by the local level organisations and non-availability of better services in public health care system increased the dependence on private health care facilities on the part of the rural people. Majority of the problems are rooted in malnutrition, condition of public sanitation, nonavailability of safe drinking water and the working conditions in the field. To meet these problems infrastructural changes in both socio-economic condition and health care system are urgently needed.

#### REFERENCES

- Banerjee, D., 1974, "Social and Cultural Foundation of Health Services System", Economic and Political Weekly, Vol. 9, No.32-34.
- \_\_\_\_\_, 1983, "National Health Policy and Its Implementation", Economic and Political Weekly, Vol. 18 (4), pp. 105-108.
- Bose, Sukla, 1979, Health Education and Problems of Health Development : A Study of a Village in Bengal, Surat, Centre for Social Studies.
- Djurfeldt, G, and S. Lindberg, 1975, Pills Against Poverty : A Study of the Introduction of Western Medicine in a Tamil Village, New Delhi, Oxford and IBH Publishers.
- Govt. of India, 1983, National Health Policy, New Delhi.
- Naik, J.P. (ed.), 1977, An Alternative of Health Care Services in India : Some Proposals, Bombay, Allied.

Srinivasan, S., 1984, "Health Care Services in Rural Tamil Nadu", in Social Change, Vol. 14(3), pp. 30-36.

Verma, H.S., (Forthcoming), Health Care Delivery in Rural Area: A Case Study from U.P., Lucknow.

---

Note : The paper forms the part of authors doctoral dissertation currently underway. He would like to express his indebtedness to Dr.H.S. Verma and Prof. B.K. Joshi for their help and guidance.

\*\*\*\*\*

aa:



## II WORKING PAPER

1. **V.B. Singh, P.D. Shrimali & R.S. Mathur** : The Problems of Select Urban Handicrafts in Uttar Pradesh (Summary of Project Report)
2. **R. S. Mathur** : Chikan Handicraft, Lucknow
3. **V. B. Singh, R. S. Mathur** : The PIREP : An Evaluation of Reoti and Bansdih Blocks (Summary of Project Report)
4. **T. S. Papola** : Planning for Employment : Some Observations
5. : Rural Industries in U. P. : The Non-Household Sector
6. : Industrialisation, Technological Choices and Urban Labour Markets
7. : Rural Househoted Industries in Uttar Pradesh
8. : Fiscal Devolution by Finance Commission : Plea for a Dynamic Approach
9. : Report of the Seminar on Regional Patterns of Agricultural Development
10. : Report of the Regional Seminar on the Indian Youth
11. **Bhanwar Singh** : The Exchange Structure and the Process of Capital Accumulation in India
12. **H. S. Verma** : Services in Urban India : A Non-elitist Perspective
13. : Family and Industrial Development in India : Some Issues and Hypotheses
14. : Character and Functioning of Rural Parties and Working of Federal Polity in India
15. : Studying Entrepreneurs and Entrepreneurship : An Examination of the Adequacy of Approaches Used
16. **R. Ramasubban** : Health Care for the People : The Empirics of the New Rural Health Scheme
17. : National Movements in Ex-Colonial Democracies : The Naga Impasse in India
18. **V. N. Misra, A. Joshi** : Performance of Agriculture in Semi-arid Region of U.P. : An Inter-District Analysis
19. **T. S. Papola** : Sex Discrimination in the Urban Labour Markets : Some Propositions Based on Indian Evidence
20. **H. S. Verma** : Study of Social Change in Independent Rural India Critical Issues for Analysis of Fourth Decade
21. **T. S. Papola, V. N. Misra** : Labour Supply and Wage Determination in Rural Uttar Pradesh
22. **T. S. Papola** : Informal Sector : Concept and Policy
23. **H. S. Verma** : Nature and Development Implications of Post-Independence Change in Rural India : A Case Study from Uparhar Area
24. **Shiva K. Gupta** : Harijan Legislators : Their Alienation & Activism (Harijan Power : A Case Study)
25. **B. K. Joshi** : Is Economic Growth Relevant ?
26. **Shiva K. Gupta** : Irrigation Farmers' Organisation in Uttar Pradesh
27. **Niranjan Pant** : Irrigation Farmers Organisations : A Case Study of Tarwan (Bihar)
28. **R. T. Tewari** : Application of Cluster Analysis for Identification of Planning Regions in Uttar Pradesh
29. **H. S. Verma** : The Identity Question in the Indian Industrial Families
30. **G. P. Mishra** : Agrarian Social Structure, Rural Power and Dynamics of Rural Development
31. **B. K. Joshi** : Poverty, Inequality and the Social Structure
32. **Niranjan Pant** : Management of Major Canal Systems in Bihar : A Kosi Case
33. **Hiranmay Dhar** : Rich Peasants and Forms of Labour and Tenancy : A Case Study of Bihar Villages
34. **G. P. Mishra** : Characteristic Features of Dominant Agrarian Relations and Class Basis of Rural Development
35. : How to Conceive Village as a Unit of Investigation into Process of Rural Development
36. : Policy for Science and Technology for Development Traditional Industries in Backward Areas : Problems and Prospects
37. **R. T. Tewari** : Opportunity Structure and Industrialisation of Backward Areas in Uttar Pradesh